

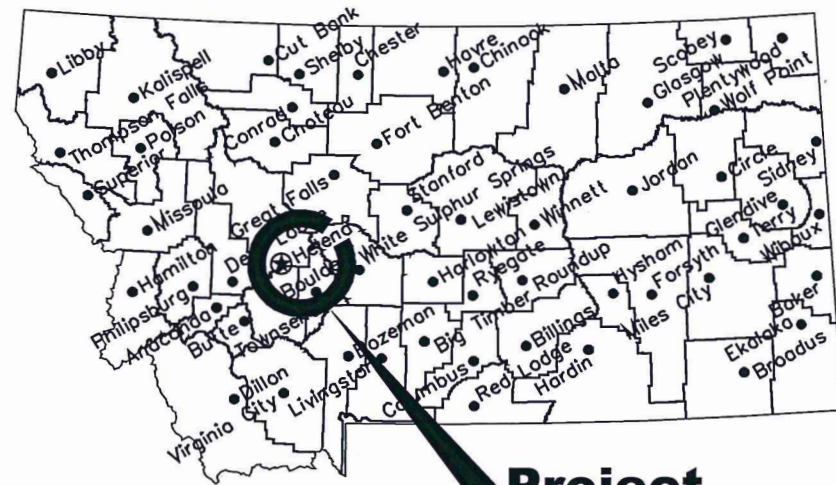
MONTANA FISH, WILDLIFE & PARKS

MONTANA WILD EDUCATION CENTER

SIDESLOPE EROSION REPAIR

2668 Broadwater Ave., Helena 59601

#7179120

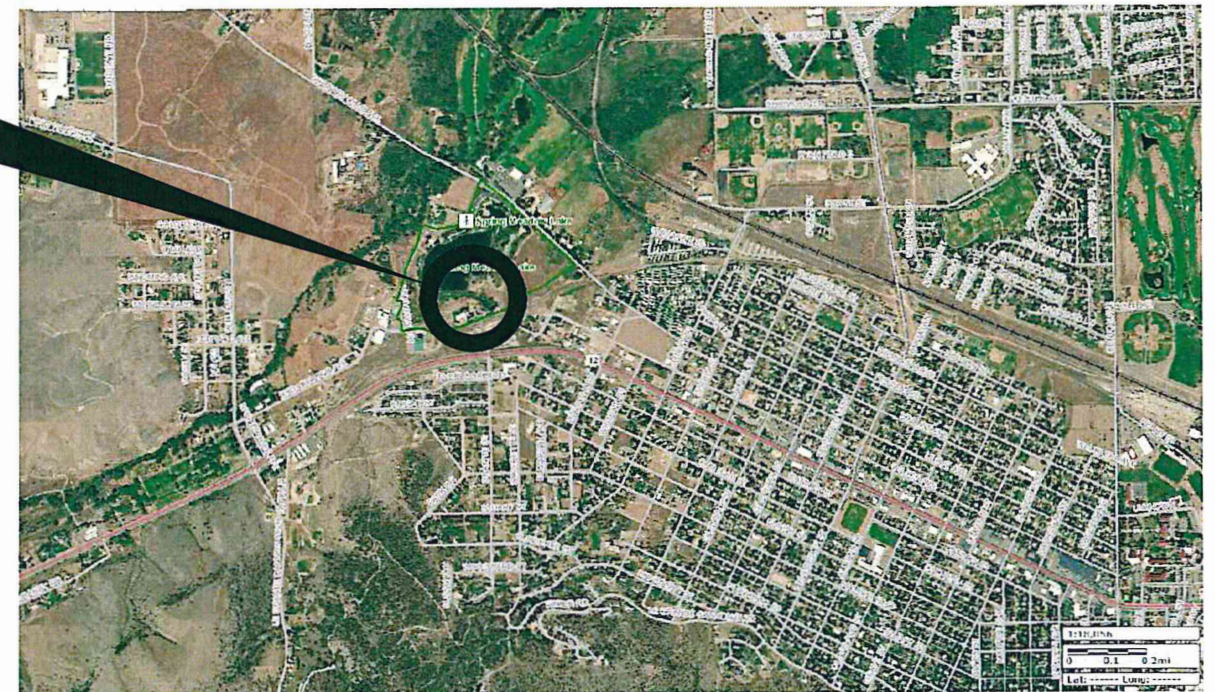


Project Location

Location Map

No Scale

Project Location



Vicinity Map

No Scale

North



MONTANA FISH, WILDLIFE AND PARKS
DESIGN AND CONSTRUCTION

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HELENA, MT 59601

DRAWING INDEX

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3	DETAILS



P. Jagoda 7/24/19
DRAWN BY: DATE:
P. Jagoda 7/24/19
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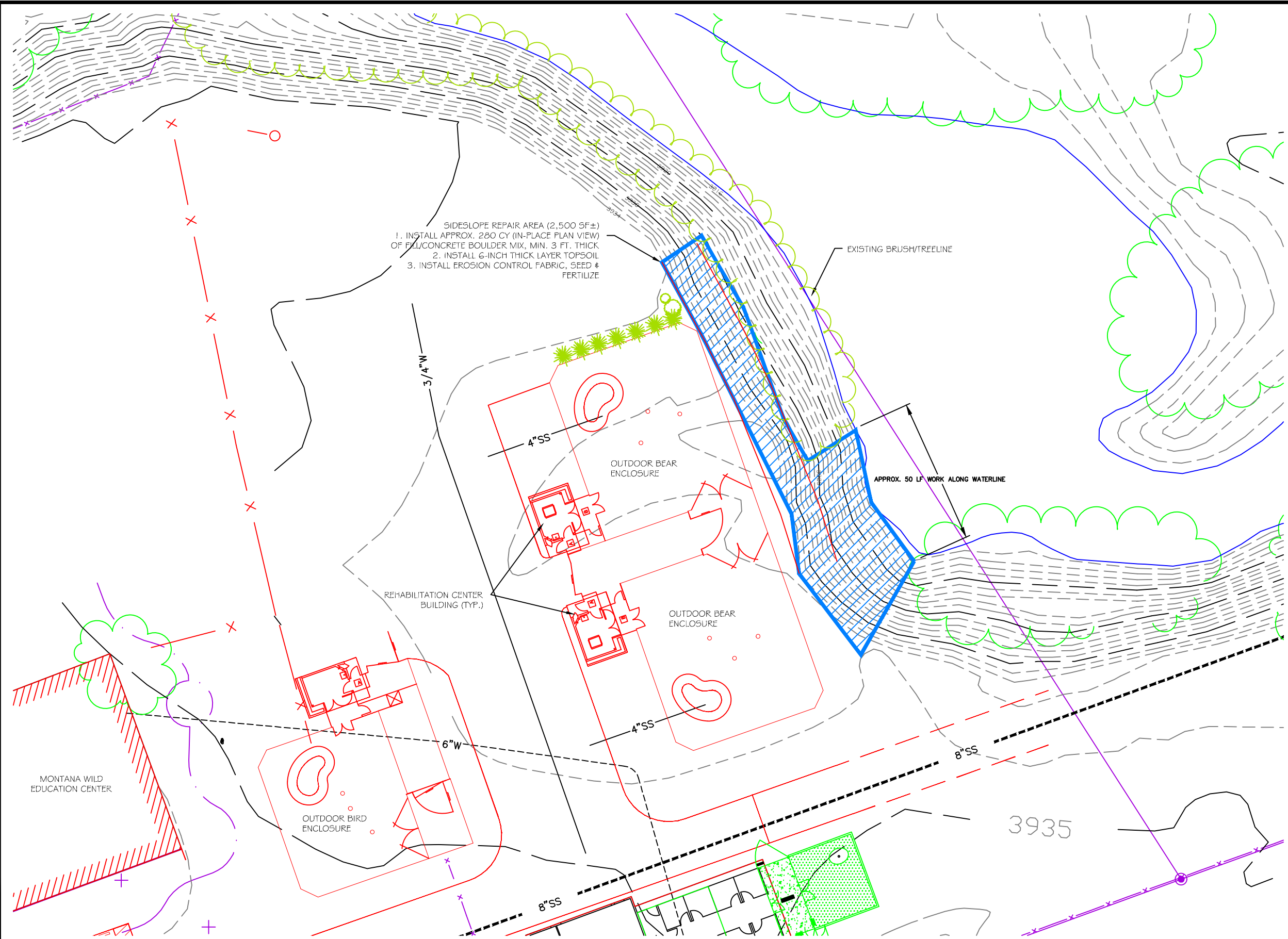


MONTANA FISH,
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Cover Sheet
MT WILD Education Center

SHEET: 1 of 3



- NOTES:
1. ANY UTILITIES DEPICTED ON THESE PLANS ARE IN ACCORDANCE WITH THEIR ACHIEVED "QUALITY LEVELS" AS DEFINED IN THE AMERICAN SOCIETY OF CIVIL ENGINEER'S DOCUMENT ASCE 38, "STANDARD FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." BEFORE DIGGING, CALL 811 FOR LOCATION OF EXISTING UTILITIES.
 2. IMPORTED FILL SHALL BE CLEAN MATERIAL, WITHOUT EXCESSIVE CLAY OR FINES, SUITABLE FOR STRUCTURAL FILL MATERIAL AND FREE OF DELETERIOUS MATERIALS. CONCRETE BOULDERS SHALL BE CLEAN AND NOT CONTAMINATED FROM ANY PREVIOUS USE.
 3. ACCESS FOR WORK IS LIMITED AND WILL BE FROM TOP OF SLOPE ONLY, NO EQUIPMENT WILL BE ALLOWED IN WATER. CONTRACTOR WILL BE REQUIRED TO PROVIDE EQUIPMENT AND MEANS & METHODS TO PLACE ALL SOILS FROM THE TOP.

LEGEND	
EXISTING FEATURES	
EX. WATER LINE	--6"W--
EX. SEWER	--8"SS--
EDGE OF ROAD	---
EXIST. FENCE	- - - - -
EX. CONTOUR	3935
TREELINE	~~~~~
GUARDRAIL	+ + + + +

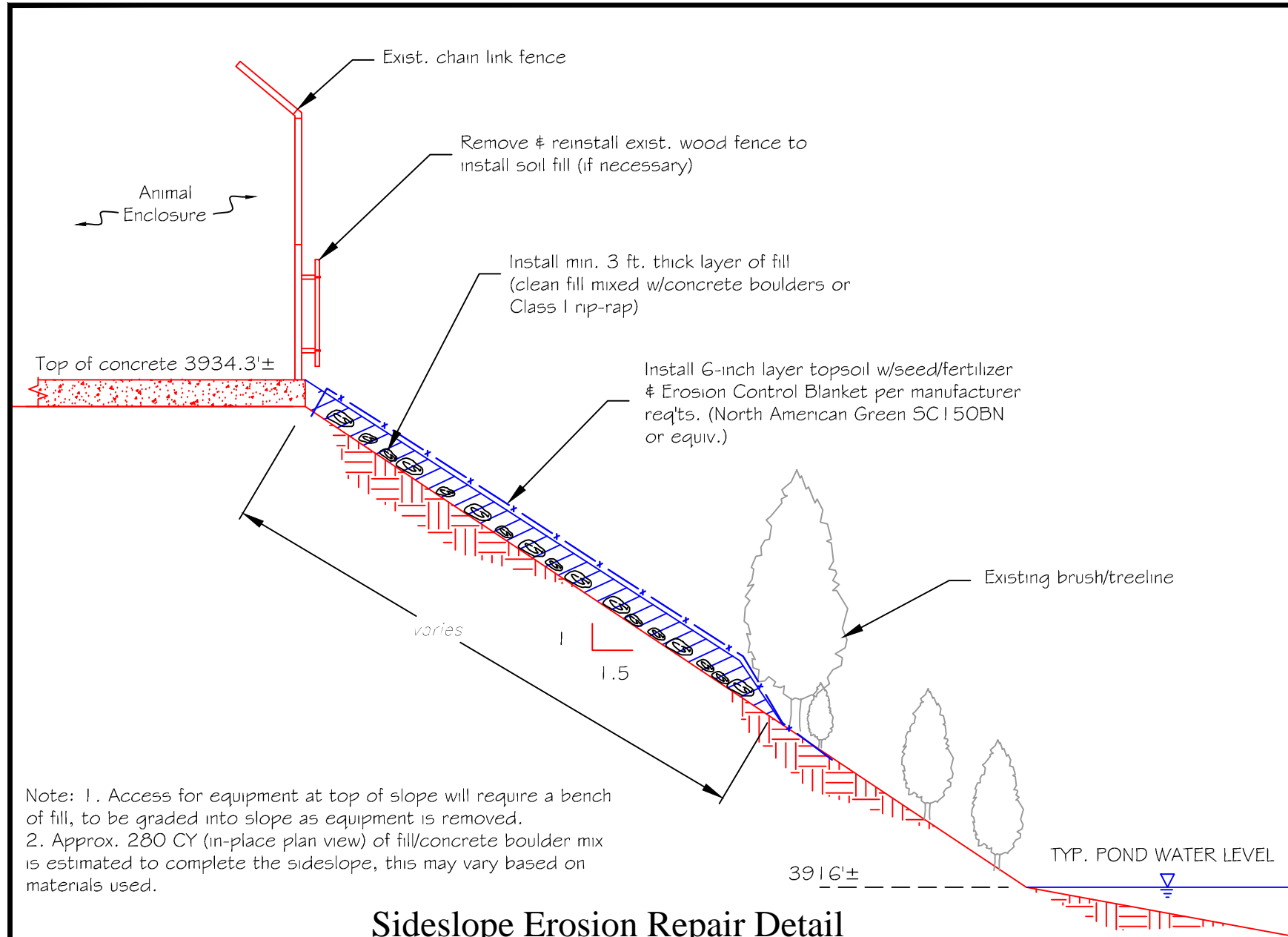


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Site Plan

MT WILD Education Center - Sideslope Erosion Repair



Note: 1. Access for equipment at top of slope will require a bench of fill, to be graded into slope as equipment is removed.
2. Approx. 280 CY (in-place plan view) of fill/concrete boulder mix is estimated to complete the sideslope, this may vary based on materials used.

Sideslope Erosion Repair Detail

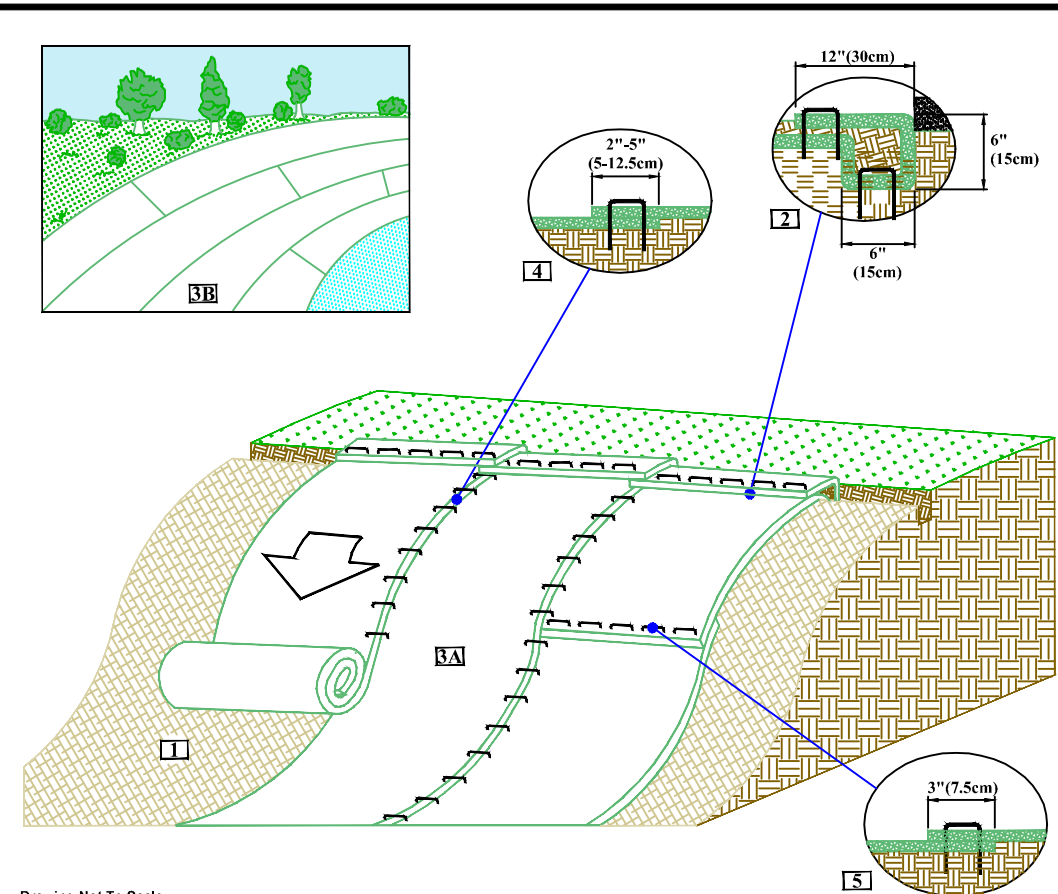
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NOTES:

- OFFSITE IMPORT MATERIAL TO BE USED AS FILL SHALL BE CLEAN MATERIAL, WITHOUT EXCESSIVE CLAY OR FINES, SUITABLE FOR STRUCTURAL FILL MATERIAL AND FREE OF DELETERIOUS MATERIALS.
- EROSION CONTROL FABRIC SHALL BE NORTH AMERICAN GREEN BIONET SC150BN OR EQUIVALENT, BIODEGRADABLE WOVEN NATURAL ORGANIC FIBER NETTING, FUNCTIONAL LONGEVITY OF UP TO 18 MONTHS.
- SEED MIX SHALL CONSIST OF THE FOLLOWING:

GRASS SPECIES	%PLS COUNT
WESTERN WHEATGRASS*	30
*substitute Thickspike for sandy soils	
STREAMBANK WHEATGRASS	20
HARD FESCUE*	20
*substitute Green Needlegrass for silty and clay soils	
SLENDER WHEATGRASS	15
GREEN NEEDLEGRASS	10 to 15
OTHERS	10±

APPLICATION RATES: DRILLED RATE (8 lbs./acre) BROADCAST RATE (16 lbs./acre) HYDROSEED RATE (16 lbs./acre)



Drawing Not To Scale

Tensar.

5401 St. Wendel - Cynthiana Rd.
Poseyville, IN 47633

NORTH AMERICAN GREEN

SLOPE INSTALLATION DETAIL

- Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
- Begin at the top of the slope by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12" (30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12"(30cm) apart across the width of the RECPs.
- Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
- The edges of parallel RECPs must be stapled with approximately 2" - 5" (5-12.5cm) overlap depending on the RECPs type.
- Consecutive RECPs spliced down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire RECPs width.

*NOTE:
In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the RECP's.

Drawn on: 3-16-11

Note: Erosion control blanket to be installed on the sideslope shall be North American Green BioNet® SC150BN™ or approved equivalent.

Erosion Control Blanket Detail

Not to Scale

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Detail Sheet
MT WILD Education Center - Sideslope Erosion Repair

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